

# Logan Natysin

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## Summary

Software Engineer with 4 years of experience in designing, creating, testing and implementing various software applications. Skilled at working with Python, Java, C, and SQL. Uses these skill to contribute in a collaborative team environment, while contributing to an organization's success in delivering top quality solutions to clients by creating the best user experience.

## Education

**Virginia Polytechnic Institute & State University**

B.S. Computer Science

**Battlefield High School**

Dec. 2024

Current GPA: 3.55/4.0

June 2021

GPA: 4.58/4.0

## Coursework

**Courses:** Database Management, Intermediate Software Design, Data Analytics & Visualization, Intro to Artificial Intelligence, Data Structures & Algorithms, Computer Systems, Discrete Math, Linear Algebra, Calculus, Physics, Probability & Statistics

**Awards:** Dean's Honor List (5x), Varsity Golf Team Captain

## Skills

**Languages:** Python, Java, C, SQL

**Tools:** MYSQL, Flask, Jupyter Notebooks, Git/GitHub, Docker, Unix Shell, VS Code, Eclipse, PyCharm, Overleaf, MATLAB, Microsoft Office Software

## Experience

**Noblis - Reston, VA** | *Autonomous Systems Intern*

Jun. 2024 – Aug. 2024

- Developed and modified a distributed asynchronous network application for autonomous vehicles.
- Designed and created a system of trust within the network of vehicles to increase the efficiency of task completion within the network.
- Designed and created a robust system for assigning tasks within the network based on trust and availability of the autonomous vehicles.
- These distributed systems are now able to work with or without communication, making them more robust and efficient.
- Created a simulation using docker to simulate real world communication between autonomous vehicles over TCP connections.
- Created a unique identity service for autonomous vehicles using SSH keys to encode and decode messages.
- Tools/Skills Used: Python, SQL, Docker, Git/GitHub, TCP networking, Multi-Threading, Robot Operating Systems.

**Stonewall Golf Club - Gainesville, VA** | *Starter/Cart Attendant*

Jun. 2021 – May 2024

- Improve and strengthen customer service skills through constant customer interaction.
- Time management, troubleshooting, and quick thinking were frequently required to keep the golfers efficiently moving through the course, leading to a better customer experience.

**Kappa Delta Rho** | *Pontifex and Service Chairman*

Feb. 2023 – Present

- Founding member of Gamma Beta chapter at Virginia Tech.
- Pontifex for Kappa Delta Rho (KDR) at Virginia Tech. In charge of brotherhood conduct and levying fines. Head of the A-Board which dealt with conflict within the chapter.
- Service chairman for Kappa Delta Rho (KDR) at Virginia Tech. Organize and plan all community service opportunities for the KDR fraternity. Track all community service projects and completion hours for members.

## Projects

**Project Discovery Portal for CS4264** | *Python, Flask, SQL, MYSQL, JavaScript, HTML, CSS, Git/GitHub, VS Code*

Oct. 2024

- Tasked with designing and creating a web application that clients, students, and professors can use to find and assign projects within the CS4264 capstone class at Virginia Tech.
- Purpose of this project was to make it easier on the professors to find clients and projects for students to complete during this class.
- Acted as the backend lead for the project. In charge of designing and portioning out parts of the backend.
- Designed and created the Database using SQL, APIs using Flask, and the backend code using Python.

**Personal Website** | *HTML, CSS, JavaScript, Git/GitHub, VS Code*

Mar. 2024

- Used HTML, CSS, and JavaScript to build a personal website to display completed projects. Website is deployed on GitHub pages.
- <https://lnatysin.github.io>

**Pacman AI** | *Python, Git/GitHub, PyCharm, AI*

Feb. 2024

- Used various AI search algorithms to solve different mazes in Pacman that ranged from easy to complex.
- The different search algorithms used were Depth First Search, Breadth First Search, Uniform Cost Search, and A\* Search.